

IN THE UNITED STATES DESIGNATED/ELECTED OFFICE

International Application No. : PCT/EP01/08018
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Applicant(s) (DO/EO/US) : MIYAKI, Yoshiyuki, et al

Title: FLUORINE TYPE ADHESIVE RESIN COMPOSITION

PRELIMINARY AMENDMENT

Commissioner for Patents
Washington, D.C. 20231

SIR:

Prior to calculating the national fee, and prior to examination in the National Phase of the above-identified International application, please amend as follows:

IN THE CLAIMS:

1. (Amended) An adhesive resin composition comprising (A) at least one resin made from a fluorine-containing monomer and (B') at least one resin made from a fluorine-containing monomer are chemically denatured by partial dehydrogenfluoride reaction and oxidation reaction, the weight ratio of A/B' being 30/70 to 99/1.
2. (Amended) The adhesive resin composition set forth in claim1, wherein said resin (A) is homopolymer of vinylidene fluoride.
3. (Amended) The adhesive resin composition set forth in claim 1, wherein said (A) is a copolymer of vinylidene fluoride and at least one monomer selected from the group consisting of tetrafluoroethylene, hexafluoropropylene, trifluoroethylene and trifluorochloroethylene, of the vinylidene fluoride content in said copolymer being 50 to 98 % by weight.

4. (Amended) The adhesive resin composition set forth in claim 1, wherein said resin (A) is a mixture of 1 to 99% by weight of the homopolymer of vinylidene fluoride and 99 to 1 % by weight of said copolymer of vinylidene fluoride set forth in claim 3.
5. (Amended) The fluorine type adhesive resin composition set forth in claim 1, wherein said chemically denatured resin (B') is a resin obtained by partial dehydrogenfluoride and oxidation reactions of the homopolymer of vinylidene fluoride.
6. (Amended) The fluorine type adhesive resin composition set forth in claim 1, wherein said chemically denatured resin (B') is a resin obtained by partial dehydrogenfluoride and oxidation reactions of the copolymer of vinylidene fluoride and at least one monomer selected from the group consisting of tetrafluorethylene, hexafluoropropylene, trifluoroethylene and trifluorochloroethylene, the vinylidene fluoride content in the said copolymer being 50 to 98% by weight.
9. (Amended) In an electrode for a battery having a current collector on a surface of which a layer of electrode-constructing material comprising at least one electrode active material and a binder, the improvement wherein, said binder is the adhesive resin composition set forth in claim 1.

Please add the following new claims 10 - 20:

10. The fluorine type adhesive resin composition set forth in claim 2, wherein said chemically denatured resin (B') is a resin obtained by partial dehydrogenfluoride and oxidation reactions of the homopolymer of vinylidene fluoride.
11. The fluorine type adhesive resin composition set forth in claim 3, wherein said chemically denatured resin (B') is a resin obtained by partial dehydrogenfluoride and oxidation reactions of the homopolymer of vinylidene fluoride.

12. The fluorine type adhesive resin composition set forth in claim 2, wherein said chemically denatured resin (B') is a resin obtained by partial dehydrogenfluoride and oxidation reactions of the copolymer of vinylidene fluoride and at least one monomer selected from the group consisting of tetrafluoroethylene, hexafluoropropylene, trifluoroethylene and trifluorochloroethylene, the vinylidene fluoride content in the said copolymer being 50 to 98% by weight.

13. The fluorine type adhesive resin composition set forth in claim 6, wherein said chemically denatured resin (B') is a resin obtained by partial dehydrogenfluoride and oxidation reactions of the copolymer of vinylidene fluoride and at least one monomer selected from the group consisting of tetrafluoroethylene, hexafluoropropylene, trifluoroethylene and trifluorochloroethylene, the vinylidene fluoride content in the said copolymer being 50 to 98% by weight.

14. In an electrode for a battery having a current collector on a surface of which a layer of electrode-constructing material comprising at least one electrode active material and a binder, the improvement wherein, said binder is the adhesive resin composition set forth in claim 2.

15. In an electrode for a battery having a current collector on a surface of which a layer of electrode-constructing material comprising at least one electrode active material and a binder, the improvement wherein, said binder is the adhesive resin composition set forth in claim 3.

16. In an electrode for a battery having a current collector on a surface of which a layer of electrode-constructing material comprising at least one electrode active material and a binder, the improvement wherein, said binder is the adhesive resin composition set forth in claim 4.

17. In an electrode for a battery having a current collector on a surface of which a layer of electrode-constructing material comprising at least one electrode active material and a binder, the improvement wherein, said binder is the adhesive resin composition set forth in claim 10.

18. In an electrode for a battery having a current collector on a surface of which a layer of electrode-constructing material comprising at least one electrode active material and a binder, the improvement wherein, said binder is the adhesive resin composition set forth in claim 11.

19. In an electrode for a battery having a current collector on a surface of which a layer of electrode-constructing material comprising at least one electrode active material and a binder, the improvement wherein, said binder is the adhesive resin composition set forth in claim 12.

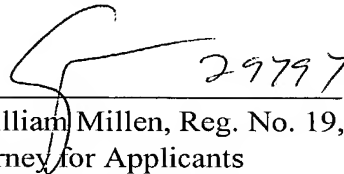
20. In an electrode for a battery having a current collector on a surface of which a layer of electrode-constructing material comprising at least one electrode active material and a binder, the improvement wherein, said binder is the adhesive resin composition set forth in claim 13.

REMARKS

The purpose of this Preliminary Amendment is to eliminate multiple dependent claims in order to avoid the additional fee. Applicants reserve the right to reintroduce claims to canceled combined subject matter.

Attached hereto is a marked-up version of the changes made to the claims by the current amendment. The attached pages are captioned "**Version With Markings to Show Changes Made**".

Respectfully submitted,

A handwritten signature in black ink, appearing to be 'I. William Millen', with the number '29797' written to its right.

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VERSION WITH MARKINGS TO SHOW CHANGES MADE

Claims 1 - 6 and 9 were amended as follows:

1. ~~Fluorine type~~(Amended) An adhesive resin composition ~~consists comprising~~ (A) at least one ~~fluorine type resin~~resin made from a fluorine-containing monomer and (B') at least one resin made from a fluorine-containing monomer are chemically denatured ~~fluorine type resin obtained by partial dehydrogenfluoride reaction and oxidation reaction~~reaction, the weight ratio of A/B' being 30/70 to 99/1.
2. (Amended) The ~~fluorine type~~ adhesive resin composition set forth in claim 1, wherein said ~~fluorine type~~ resin (A) is homopolymer of ~~vinylidene~~vinylidene fluoride.
3. (Amended) The ~~fluorine type~~ adhesive resin composition set forth in claim 1, wherein said ~~fluorine type~~ resin (A) is a copolymer of vinylidene fluoride and at least one monomer selected from athe group consisting of tetrafluoroethylene, hexafluoropropylene, trifluoroethylene and trifluorochloroethylene, ~~a proportion of the vinylidene fluoride content in the said copolymer being~~ 50 to 98 % by weight.
4. (Amended) The ~~fluorine type~~ adhesive resin composition set forth in claim 1, wherein said ~~fluorine type~~ resin (A) is a mixture of 1 to 99% by weight of the homopolymer of vinylidene fluoride and 99 to 1 % by weight of said copolymer of vinylidene fluoride set forth in claim 3.
5. (Amended) The ~~fluorine type~~ adhesive resin composition set forth in ~~any one of claims 1 to 4,~~ wherein said chemically denatured ~~fluorine type~~ resin (B') is a resin obtained by partial dehydrogenfluoride and oxidation reactions of the homopolymer of vinylidene fluoride.

